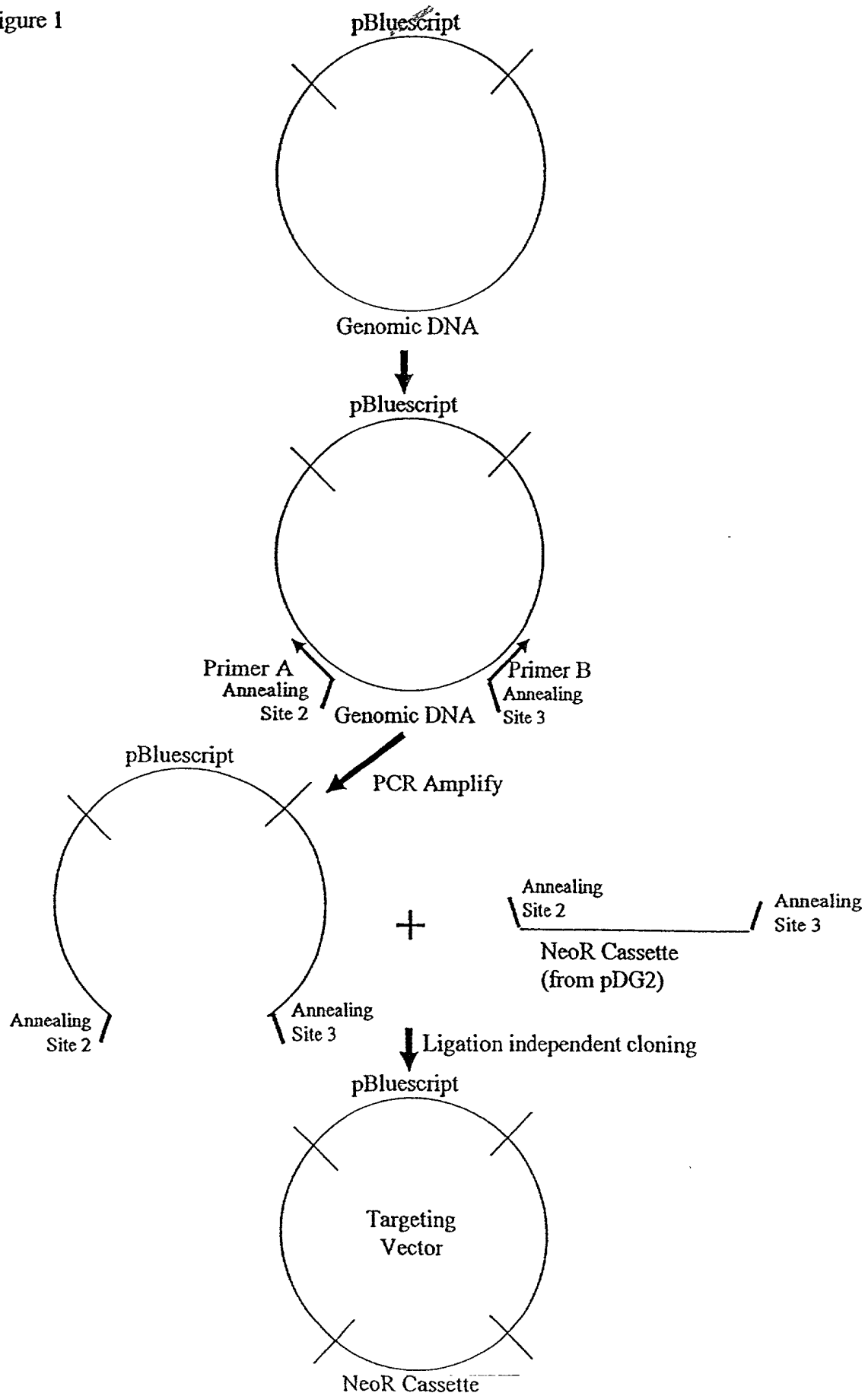


Figure 1



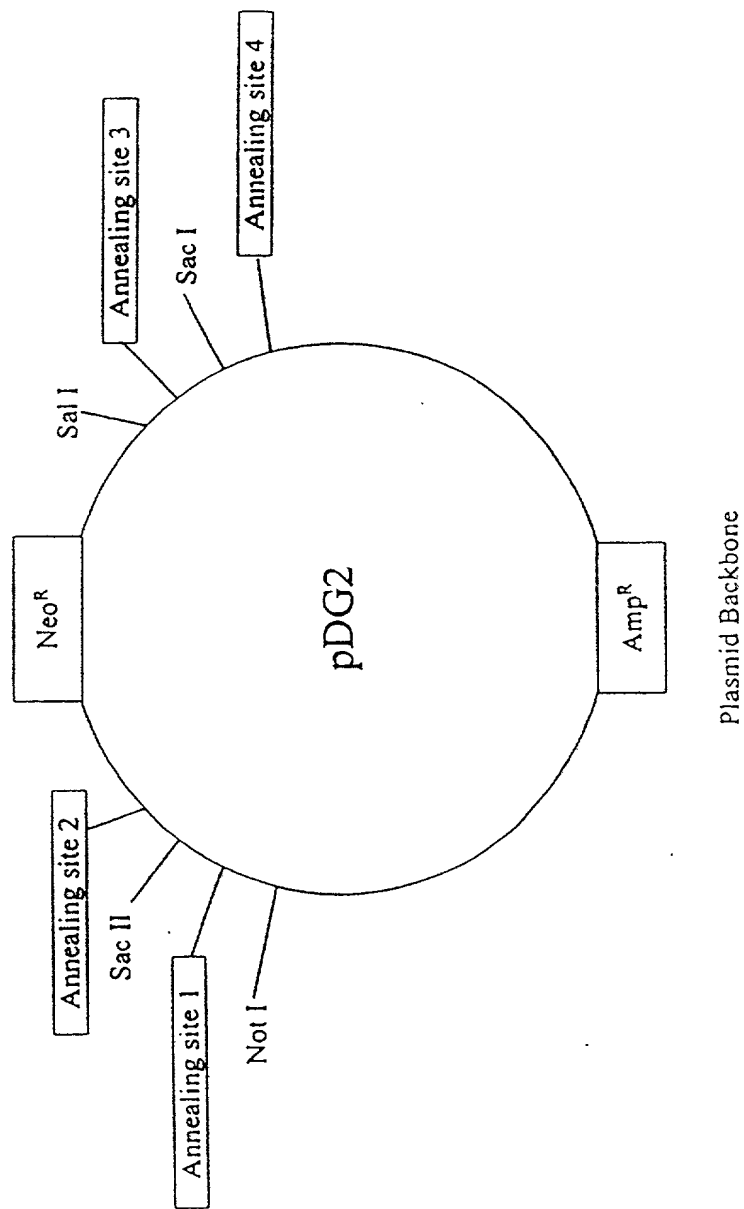


FIGURE 2A

FIGURE 2B

pDG2:

GTAACTACGT CAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTCTAAATACATTCAAATA
TGTATCCGCTCATGAGACAATAACCTGATAAATGCTTCAATAATATTGAAAAAGGAAGATGATGAGTATTCAACATTTTC
CGTGTGCGCCCTTATTCCTTTTTTTCGGGCATTTTGCTTCTGTTTTGCTCACCAGAAACCGTGGTGAAAGTAAAGA
TGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAAGTGGATCTCAACAGCGGTAAAGATCCTTGAGAGTTTTCGCC
CCGAAGAACGTTCTCCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGTATTATCCCGTGTGACGCCGGGCAA
GAGCAACTCGGTGCGCCGATACACTATTCTCAGAACTGAGTTGGTTGAGTACTCACCAGTACAGAAAAAGCATCTTACGGA
TGGCATGACAGTAAGAGAATTATGCACTGCTGCCATAACCATGAGTGATAACACTGCGGCCAAGTTACTTCTGACAAACGA
TCGGAGGACCGAAGGAGCTAACCGCTTTTTTGCAACATGCGGGATCATGTAAGTTCGCTTGGTAACCGGAG
CTGAATGAAGCCATACCAACGACGAGCGTGACCAACGATGCTGTAGCAATGGCAACACGTTGCGCAAACTATTAAAC
TGGCGAACTACTTACTCTAGCTTCCCGCAACAATTAAGACTGGATGGAGGCGGATAAAGTTGCAGGACCACTTCTGC
GCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTCGAGCA
CTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAG
ACAGATCGCTGAGATAGGTGCTCACTGATTAAGCATTGGTAAGTGTGACAGCAAGTTTACTCATATATACTTTAGATTG
ATTTACCCCGGTTGATAATCAGAAAAGCCCCAAAAACAGGAAGATTGTATAAGCAAAATATTAAATTGTAACCGTTAATA
TTTTGTTAAAAATTGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAAACCAATAGGCCGAAATCGGCAAAATCCCTTAT
AAATCAAAAGAAATAGCCCGAGATAGGGTTGAGTGTGTTCCAGTTTGGAAACAAGAGTCCACTATTAAAGAACGTTGGACTC
CAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCAAAATCAAGTTTTTGGGGT
CGAGGTGCGGTAAAGCACTAAATCGGAACCCCTAAAGGGAGCCCCCGATTAGAGCTTGACGGGGAAAGCGAACGTTGGCGA
GAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTAGCGGTGACGCTGCGCGTAACCAACACA
CCCGCCGCGCTTAATGCGCGCTACAGGGCGCGTAAAGGATCTAGGTGAAGATCCTTTTGATAATCTCATGACCAAAA
TCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAGACCCGCTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTT
CTGCGCGTAATCTGCTGCTTGCAAAACAAAAAACCAACCGCTACCAGCGGTGGTTGTTTTCGGGATCAAGAGCTACCAAC
TCTTTTTTCGAAGGTAAGTGGCTTACGAGAGCGCAGATACCAAACTACTGTTCTTCTAGTGTAGCGGTAGTTAGGCCACC
ACTTCAAGAACTCTGTAGCACCGCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAG
TCGTGCTTACCAGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTGCGGTGAAAGCGGGGTTCCGTGCAC
ACAGCCCGCTTGGAGCGAACGACCTACACCGAAGTGAATACCTACAGCGTGAAGTATGAGAAAGCGCCACGCTTCCCG
AAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCGGGTGGAAACAGGAGCGCACGAGGAGCTTCCAGGGGAAAC
GCCTGGTATCTTTATAGTCTGTGCGGTTTCCGCACTCTGACTTGAGCGTGCATTTTTGTGATGCTCGTCAGGGGGCG
GAGCCTATGGAAGAACGCGCAGCAACGCGGCTTTTACGTTTCTGCGCTTTTGTGCGCTTTTGTCTCATGTATGTG
AGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTCGTATGTTGTGGAATTTGAGCGGATA
ACAATTTACAGGAACAGCTATGACCATGATTACGCCAAGCTACGTAATACGACTCACTAGGCGCGCGTTTAAAC
AATGCTGCTCCTCTTTGGCTTGGCTTCCGCGGCGCAAGCGCAGCAAGAACAGTTGACGTCAAGCTTCCCGGACGCGTGT
AGCGGCGCGCGAATTCTGTCAGGATTGAGGGCCCTGCAAGTCAATTCTACCGGTAGGGGAGGCGCTTTTCCCAAGG
CAGTCTGGAGCATGCGCTTTAGCAGCCCGCTGGCACTTGGCGCTACACAAGTGGCTCTGCGCTCGCACATTCACA
TCCACCGGTAGCGCAACCGGCTCCGTTCTTGGTGGCCCCCTTCCGCCACCTTCTACTCTCCCTAGTCAGGAAGTTC
CCCCCGCCCCCGAGCTCGCGTCTGTCAGGACGTGACAAATGGAAGTAGCACGTCTCACTAGTCTCGTGCAGATGGACAG
CACCGCTGAGCAATGGAAGCGGTAGGCTTTGGGGCAGCGGCAATAGCAGCTTTGCTCTCGCTTTCTGGGCTCAG
GGCTGGGAAGGGTGGGTCCGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGCGGCGAAGGCTCTCCGAGGCCCC
GGCATTCTCGCACGCTTCAAAGCGCACGCTGCGCGCTGTTCTCTCTCTCTCATCTCCGGGCTTTGCACTGACG
CAATATGGGATCGGCCATTGAACAAGATGGATTGCAAGCAGGTTCTCCGGCGCTTTGGGTGGAGAGGCTATTCCGGCTATG
ACTGGGCACAACAGACAATCGGCTGCTCTGATGCCGCGTGTCCGGCTGTGAGCGAGGGGCGCCCGTCTTTTTGTG
AAGACCGACCTGTCCGGTCCCTGAATGAAGTGCAGGACGAGGCGCGCTATCGTGGCTGGCCACGACGGGCGTTC
TTGCGCAGCTGTGCTCGACGTTGTCACTGAAGCGGGAAGGACTGGCTGCTATTGGGCGAAGTCCGGGGCAGGATCTCC
TGTCACTCTACCTTGTCTCTGCGGAGAAAGTATCCATCATGGCTGATGCAATGCGGCGGCTGCATACGCTTGATCCGGCT
ACCTGCCATTTCAGCACCAAGCGAAACATCGCATCGAGCGAGCACGTAAGTGGAAAGCGGCTTGTGATCAGGA
TGATCTGGACGAAGAGCATCAGGGGCTCGCGCCAGCGCAACTGTTCCGCGAGCTCAAGGCGCGCATGCCGAGCGGATG
ATCTCGTCTGACCCATGGCGATGCTGCTTGGCGAATATCATGGTGGAAAAATGGCGCTTTTCTGGATTCTACGACTGT
GGCGGGCTGGGTGTGGCGGACCGCTATCAGGACATAGCGTTGGCTACCGGTGATATTGCTGAAGAGCTTGGCGGCAATG
GGCTGACCGCTTCTCGTGTCTTACGGTATCGCGCTCCCGATTCCGAGCGCATCGCTTCTATCGCTTCTTGACGAGT
TCTTCTGAGGGGATCGATCCGCTCTGAAGTCTGCAGAAATTGATGATCTATTAAACAATAAAGATGTCCACTAAAAATGG
AAGTTTTTCTGTCTACTTTTGTAAAGAGGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGG
GTGGGGTGGGGTGGGATTAGATAAATGCTGCTCTTACTGAAGGCTCTTACTATTGCTTTATGATAATGTTTCTATG
TTGGATATCATAATTTAAACAAGCAAAACCAATTAAGGGCCAGCTCATCTCCCACTCATGATCTATAGATCTATAGA
TCTCTCGTGGGATCATTGTTTTCTCTGATTCCCACTTTGTGGTTCTAAGTACTGTGTTTCCAAATGTGTGATGTTCA
TAGCCTGAAGAACGAGATCAGCAGCCTCTGTTCCACATACACTTCACTCTCAGTATTGTTTTGCCAAGTTCTAATCCAT
CAGAAGCTGACTCTAGATCTGGATCCGGCCAGCTAGGCGCTCGACCTCGAGTGTACAGTACCAAGGCTCTCGCTCTGTG
TCCGTTGAGCTCGACGACACAGGACACGCAATTAATTAAGGCGGCGCTACCTCTAGTCAAGGCTTAAAGTGAAGTCTG
TATTACGAGTGGCGCTGTTTTACAACGTCGTGACTGGGAAAAACCTGGCGTTACCAACTTAATCGCTTGCAGCACA
TCCCCCTTTCCGCGAGTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCG
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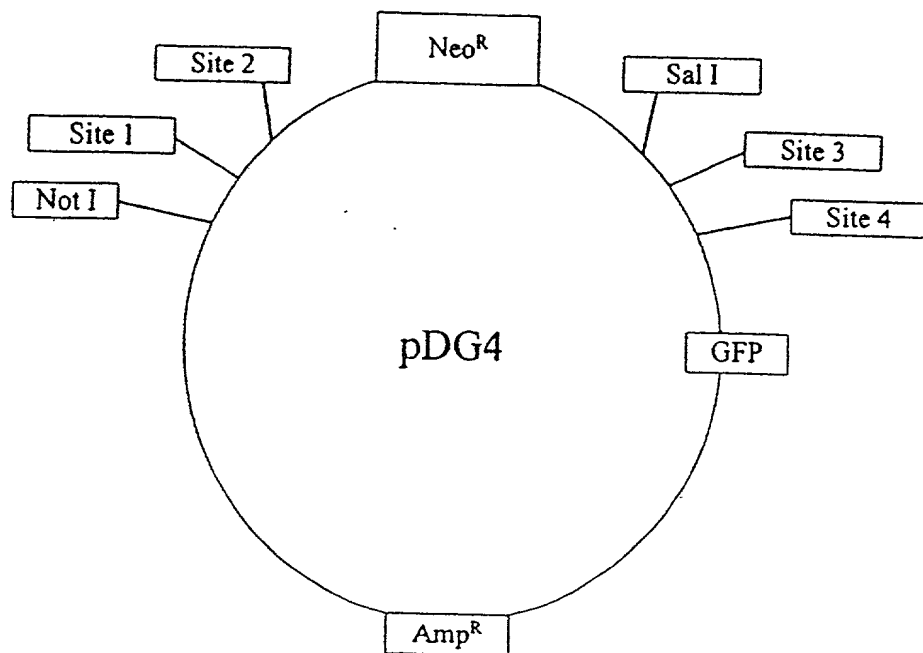


FIGURE 3A

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1. *See* *supra* note 1, at 100.

GTTATAAGTAATCAATTAACGGGGTCTATTAGTTTCATAGCCCATATATGGAGTTCGCGTTACATAAATACGGTAAATGG
 CCGCCTGGCTGACCGCCCAACGACCCCGCCCATTTGACGTCATTAATGACGTATGTTCCCATAGTAACGCCAATAGGGA
 CTTTCCAATGACGTCAATGGGTGGAGTATTTACGGTAAATGCGCCACTTGGCAGTACATCAAGTGTATCATGATGCCAAGT
 ACGCCCCCTATTGACGTCAATGACGGAAAATGGCCCGCTGGCATTAAAGCCGATACATGACCTTATGGGACTTCTCTAC
 TTGGCAGTACATCGGATTTAGTCACTGCTATACCTGATTACCGTGTATGCGGTTTGGCAGTACCTCAATGGGCGTGGATAGC
 GGTGGTACATCCGGAATTTTCCAAGTCTCCACCCCATTTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGAC
 TTTCCAAAATGTCGTAACAACTCCGCCCATTTGACGCAAAATGGGCGGTAGGCGGTGACGGTGGGAGGTCTATATAAGCAG
 AGCTGGTTTAGTGAAACCGTCAGATCCGCTAGCGCTACCGGTGCGCACCATGGTGAGCAAGGGCGAGAGCTGTTACCGG
 GGTGGTGCCCATCTGTCGAGCTGGACGGCGACGTAACCGGCCACAAGTTACAGCTGTCCGCGAGGGCGAGGCGCATG
 CCACCTACCGGCAAGCTGACCTGAAGTTTCATCTGACCCACCGGCAAGTGCCTGCGCTCGGCCACCTCGTGACACC
 CTGACCTACGGGTGACGTGCTTACGCGCTACCCGACCATCAAGCAGCAGCACTTCTTCAAGTCCGCCATGCCCGA
 AGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCACTACAAGACCCGCGCGAGGTGAAGTTCGAGGGCG
 ACACCTGGTGAAACCGCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTAC
 AACTACAACAGGCCAACAGTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGAACCTCAAGATCCGCCACAA
 CATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAGAACCCCCATCGCGGACGGCCCGCTGCTGTCGCCG
 ACAACCACTACCTGAGGACCCAGTCCGCCCTGAGCAAGAGCCCCAACGACGGCGATCATGTTCTGCTGGAGTTT
 GTACCGCGCGCGGGATCACTCTCGGATGGACAGCTGTACAAGTCCGGACTCAGATCCACCGGATCTAGATAAATGAT
 CATAATCAGCCATACCAATTTGTAGAGGTTTACTTGTCTTAAAAAACCTCCACACCTCCCCCTGAACCTGAAACATA
 AAATGAATGCAATTGTTGTTGTTAACTTGTATTGTCAGCTTATAATGGTTACAAATAAAGCAATAGCATCAAAATTTT
 ACAAATAAAGCATTTTTTCACTGCACTTAGTGTGTTTGTCCAAACTCATCAATGTATCTTAACGCGAACTACGTCA
 GGTGGCACTTTTCGGGGAAATGTGCGCGCAACCCCTATTGTTTATTCTAAATACATCAAAATGTATCTCGCTCAT
 GAGACAATAACCCCTGATAAATGCTTCAATAATTTGAAAAGGAAGAGTAGTATTCAACATTTCCGTGTGCGCCCTTA
 TTCCCTTTTTTGGCGCATTTTTGCGCTTCTGTTTTGTCTACCCAGAAACGCTGGTGAAAGTAAAGATGCTGAAGATCAG
 TTGGGTGCACGAGTGGGTTACATCGAACTGGATCTCAACAGCGGTAGATCCTTGAGAGTTTTGCGCCCGAAGAACGTTT
 TCCAATGATGAGCACTTTTAAAGTTCTGCTATGTGGCGCGTATTATCCGTGTTGACGCGCGGCAAGAGCACTCGGT
 GCGGCATACACTATTCTCAGAACTGACTTGGTTGAGTACTCACCAGTACAGAAAAGCTTACCGCATGACAGTA
 AGAGAATTATGCACTGTGCGCAATAACCTAGTGATAACTCGCGCAACTACTTCTGACACGTGCGAGGACCGAA
 GGAGCTAAACCGCTTTTTTGCACAACTAGGGGATCATGTAACCTCGCCTTGATCGTTGGGAACCGGAGCTGAATGAAGCCA
 TGCACAAACGACGAGCGTGACACCCAGATGCTGTAGCAATGGCAACAAGTTGCGCAACTATTAAGTGGCGAACTACTT
 ACTCTAGCTTCCCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGACAGGACCACTTCTGCGCTCGGCCCTTCC
 GGCTGGCTGGTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGCAAGCTGGGGCCAGATG
 GTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGAGTCAAGCACTATGGATGAGCAAGAAATAGACAGATCGCTGAG
 ATAGTGCCCTCACTGATTAAAGCATTTGGTATGCTGACAGCAAGTTTACTCATATATCTTTAGATTGATTACCCCGGT
 GATAATCAGAAAGCCCAAAAACAGGAAGATTGTATAAGCAAAATTTAAATTTGTAACGTTAATAATTTGTTAAATTT
 CGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCGGAAATCGGCAAAATCCCTTATAAATCAAAGAAT
 AGCCCGAGATAGGGTTAGTGTGTTTCCAGTTTGGAAACAGAGTCCACTATTAAGAACGTTGAGTCCCAACGTCAAAGGG
 CGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCCAAATCAAGTTTTTGGGCTCGAGGTGCGGTAA
 AGCACTAAATCGGAACCCCTAAAGGGACCCCGGATTTAGAGCTTGAAGGGGAAAGCAAGCTGGCGGAGAAAGGAGGAA
 GAAAGCGAAAGGACGGCGCTTAGGGCGCTGCGCAAGTGTAGCGTCAAGCTGCGCGTAAACCACACACCCGCGCGCTTA
 ATGCGCGCTACAGGGCGCGTAAAGGATCTAGGTGAAGATCCTTTTTGATAATCTCATGACCAAAATCCCTTAAAGTGA
 GTTTTCTGTTCCACTGAGCGTCAGACCCCGTAGAAAAGATCAAAGGATCTTTGAGATCCTTTTTTCTGCGCGTAACTCT
 GGTGCTTGAACAAAAAACCACCGCTACCAGCGGTGGTTTGTGTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAG
 GTAAGTGGCTTACGAGAGCGCAGATACCAAACTGTTCTTCTAGTGACCGCTAGTTAGGCCACCACTTCAAGAATCT
 TGTAGCACCGCTACATACCTCGCTGTGTAATGCTGTTACCTAGTGGCTGCTGCGCATGGCGGATAGTCTGTTCTTACG
 TGTGGACTCAAGACATAGTTATCCGATTAAGCGCGTAGCGGTGCGGCTGAACGGGGGTTCTGTCACACAGCCAGCTTG
 GAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCGAAGGGAGAAAGG
 GGACAGGTATCCGTAAGCGGCAGGGTCGGAACAGGAGAGCGCAGAGGGAGCTTCCAGGGGAAACCGCTGGTATCTTT
 ATAGTCTGTGCGGTTTTCGCCACCTCTGACTTGAGCGTCGATTTTGTGATGCTCGTCAGGGGCGGAGCTTATGAAA
 AACGCCAGCAACGCGCCTTTTTACGGTTCTCTGGCCTTTTGTGCGCTTTTGTCTCATGTTAGTTGAGTGTACTCACTC
 ATTAGGCCACCCCGGCTTTACATCTTTATGCTTCGGCTCGTATGTTGTGTTGGAATTGTGAGCGGATAACAATTTACACA
 GGAACAGCTATGACCATATTACGCCGACGTACGTAATACGACTCACTAGGCGGCGCGGTTTAAACAATGTGCTCCTCT
 TTGGCTTGCTTCCGCGGGCAAGCCAGACAAGAACAGTTGACGTCAAGCTTCCCGGACCGGTGCTAGCGCGCGCGCA
 ATTCTGACAGGATTCGAGGGCCCCGTCAGGTCAATTCTACCGGTAGGGGAGCGCTTTTCCAAGGCAGTCTGGAGACG
 GCGCTTTAGCAGCCCGCTGGCACTTGGCGCTACACAAGTGGGCTTGGCCTCGCACATCCACATCCAGTGGAGCG
 CCAACCGGCTCGGTTCTTTGGTGCGCCCTTCGCGCCACTTCTACTCTCCCTAGTCAGGAAGTTCCCCCGCGCCCGC
 AGCTCGCGCTGTCGAGGACGTGACAAATGGAAGTAGCGTCTCACTAGTCTCTGTCAGATGGACAGCACCGCTGAGCAA
 TGAAGACGGGTAGGCTCTTTGGGCGACGGGCCAATAGCAGCTTGTCTCTTCTGCTTCTGGGCTCAGAGCTGGGAAGGGG
 TGGGTCCGGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGCGGGCGGAAGGTCTCTCCGAGGCGCGGCTTCTCGCAC
 GCTTCAAAGCGCAGCTCTGCGCGCTGTTCTCTCTCTCTCATCTCCGGGCTTCTGACCTGCAGCAATATGGGATCG
 GCCATTGAACAGATGGATTGACACGAGGTTCTCCGGCGCTTGGGTGGAGAGGCTATCGGTGATGACTGGGCAACA
 GACAATCGGCTGACTGATGCGCGCGTGTCCCGCTGTCAGCGAGGGCGCCGCTTCTTTTGTCAAGACCGACCTGT
 CCGGTGCCCTGAATGAACTGCAGGACGAGGACGCGGCTATCGTGGCTGGCCACGACGGGCTTCTTGGCGAGCTGTG
 CTCGAGCTTGTCTACTGAAGCGGGAAGGACTGGCTGCTATTGGGCGAAGTGCCGGGCGAGATCTCTGTCTCTCACT

TGCTCCTGCCGAGAAAGTATCCATCATGGCTGATGCAATGCCGCCGCTGCATACGCTTGATCCGGCTACCTGCCCATTCG
ACCACCAAGCGAAACATCGCATCGAGCGAGCAGTACTCGGATGGAAGCCGGTCTTGTCGATCAGGATGATCTGGACGAA
GAGCATCAGGGGCTCGCGCCAGCCGAAGTCTTCCGCCAGGCTCAAGGCGCGCATGCCGACGGCGATGATCTCGTCGTGAC
CCATGGCGATGCCTGCTTGCCGAATATCATGGTGGAAAATGGCCGCTTTTCTGGATTTCATCGACTGTGGCCGGCTGGGTG
TGGCGGACCGCTATCAGGACATAGCGTTGGCTACCCGTGATATTGCTGAAGAGCTTGGCGGCGAATGGGCTGACCGCTTC
CTCGTGCTTTACGGTATCGCCGCTCCCGATTTCGAGCGCATCGCCTTCTATCGCCTTCTTGACGAGTTCTTCTGAGGGGA
TCGATCCGTCTGTAAAGTCTGCAGAAATTGATGATCTATTAAACAATAAAGATGTCCACTAAAATGGAAGTTTTCTGT
CATACTTTGTTAAGAAGGGTGAGAACAGAGTACCTACATTTGAATGGAAGGATTGGAGCTACGGGGTGGGGTGGGT
GGGATTAGATAAATGCCTGCTCTTTACTGAAGGCTCTTTACTATTGCTTTATGATAATGTTTCATAGTTGGATATCATAA
TTTAAACAAGCAAAACCAAATTAAGGGCCAGCTCATTCTCCCACTCATGATCTATAGATCTATAGATCTCTCGTGGGAT
CATTTGTTTTCTCTTGATTCCCACTTTGTGGTTCTAAGTACTGTGGTTTCCAAATGTGTCAGTTTCATAGCCTGAAGAAC
GAGATCAGCAGCCTCTGTTCCACATACACTTCATTCTCAGTATTGTTTTGCCAAGTTCTAATTCCATCAGAAGCTGACTC
TAGATCTGGATCCGCCAGCTAGGCCGTGCACCTCGAGTGATCAGGTACCAAGGTCCTCGCTCTGTGTCCGTTGAGCTCG
ACGACACAGGACACGCAATTAATTAAGGCCGCCCGTACCCTCTAGTCAAGGCCTTAAGTGAGTCGTATTACGGACTGG
CCGTCGTTTTACAACGTCGTGACTGGGAAAACCCGTGGCGTTACCCAACTTAATCGCCTTGACGACATCCCCCTTTCGCC
AGCTGGCGTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAATGGCGAATGGCGCTTCGC
TTGGTAATAAAGCCCGCTTCGGCGGGCTTTTTTTT

FIGURE 3B (Continued)

FIGURE 6

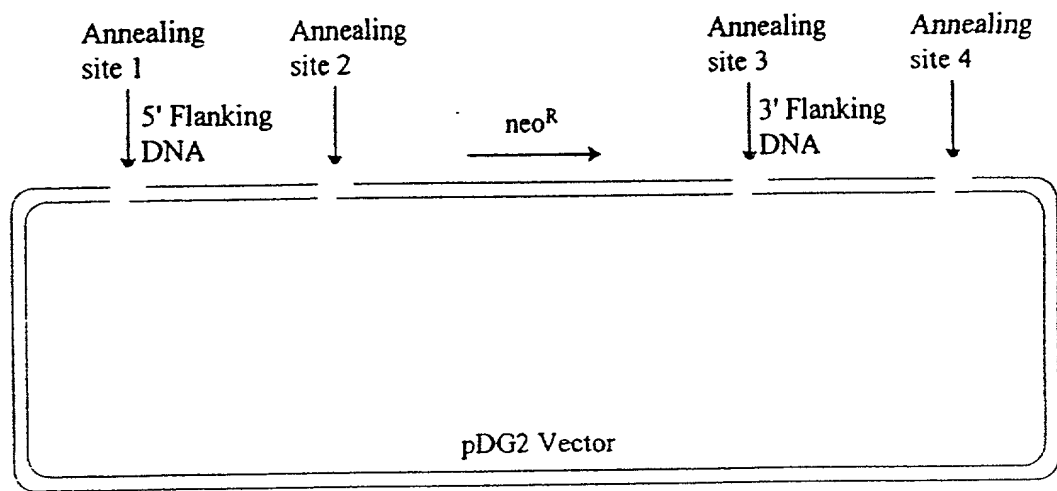
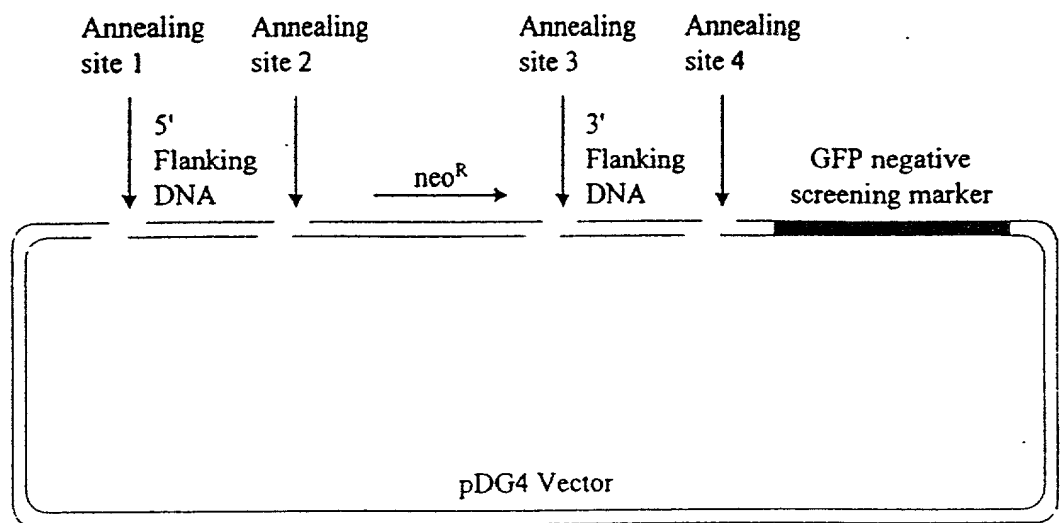


FIGURE 7



GGACATGGACTGCTATCTGCGTCGCCTCAAACAGGAGCTGATGTCCATGAAGGAGGTGGGGGATGGCTTG
 CAGGATCAGATGAACTGCATGATGGGCGCAGACTGGGCTAGCTGGAGAGAGACAAGAACCAAAAGCACAG
 CCTTCCTGTGTGATTTCTACAGCCCCAGAGCACCATGGACCCAGGGAACCCAGGAAAAACGTGCTGGT
 GGTGGCTCTCCTTGTCATTTTCCAGGTGTGCTTCTGCCAAGATGAGGTCACCGATGACTACATCGGCGAG
 AATACCACGGTGGACTACACCTGTACGAGTCGGTGTGCTTCAAGAAGGATGTGCGGAACTTTAAGGCCT
 GGTTCCTGCTCTCATGTATTCTGTCATCTGCTTCGTGGGCCTGCTCGGCAACGGGCTGGTGATACTGAC
 GTACATCTATTTCAAGAGGCTCAAGACCATGACGGATACCTACCTGCTCAACCTGGCCGTGGCAGACATC
 CTTTTCTCTAATTCTTCCCTTCTGGGCCTACAGCGAAGCCAAGTCTGGATCTTTGGCGTCTACCTGT
 GTAAGGGCATCTTTGGCATCTATAAGTTAAGCTTCTTCAGCGGGATGCTGCTGCTCCTATGCATCAGCAT
 TGACCGCTACGTAGCCATCGTCCAGGCCGTGTGCGTCATCGCCACCGCGCCCGCGTGCTTCTCATCAGC
 AAGCTGTCTGTGTGGGCATCTGGATGCTGGCCCTCTTCTCTCCATCCCGAGCTGCTCTACAGCGGCC
 TCCAGAAGAACAGCGCGGAGGACACGCTGAGATGCTCACTGGTCAGTGCCCAAGTGAGGGCCTTGATCAC
 CATCCAAGTGGCCAGATGGTTTTTGGGTTCTAGTGCCCTATGCTGGCTATGAGTTTCTGCTACCTCATT
 ATCATCCGTACCTTGCTCCAGGCACGCAACTTTGAGCGGAACAAGGCCATCAAGGTGATCATTGCCGTGG
 TGGTAGTCTTCATAGTCTTCCAGCTGCCCTACAATGGGGTGGTCTGGCTCAGACGGTGGCCAACCTCAA
 CATACCAATAGCAGCTGCGAAACCAGCAAGCAGCTCAACATTGCCTATGACGTCACTACAGCCTGGCC
 TCCGTCCGCTGCTGCGTCAACCCTTTCTTGTATGCCTTCATCGGCGTCAAGTTCCGCAGCGACCTCTTCA
 AGCTCTTCAAGGACTTGGGCTGCCTCAGCCAGGAACGGCTCCGGCACTGGTCTTCTGCGCGCATGTACG
 GAACGCGTCGGTGAGCATGGAGGCGGAGACCACACAACCTTCTCCCCGTAGGGGGCTCCCCTGCCCGGA
 CTACAAGGACCTCTCCAGGAGCCTTAATGTGGTGCACACATGCACAGACTCTCCATCCACCGAATTGCT
 GCTGAGGGAAGAGCAATTCTGGCCAGTCAGGTTGACATGAGGACCTAAGAAACTGCTTAACCCCATCCCA
 CTTATAACTACCTCAACCAAAGCTGTAAAGATATGGCTGAGAAGTTAACTCAAGCCAAGACAGCTAT
 CCCCCAACGACAGCCAAAAGTGAAAGTGAGAGGCTCCACACTTTCGGAGTGAGGGATGTGGGGCCAGT
 GAACACCCTGGTTGAGTAGTCTTCGGAGGCCTCTGAATGAACCTGCTTCTAGCTTAGAGAGATGTCCCGG
 AGATTCAAGACAGAGCTTATCTCCACACTTAGCAAGCAAGCAAGAGATGACAGTCTCTCTAAATGCTCCC
 ACAGAGCACCCCTGCCCCCTCCCTTCTGCCTCTCCACCGCCTTTCCTGAGGTCCAGGCCACACCATGACGC
 TGAGGCAGTCCCAGCTGGGGCTCTGGATGGCAATGACAAGTAGTTGGGTCTCTATGATGGGAATAAAAAAG
 GTAGGGGAAAGGTGACAGGAAGGAGAGAAGGTGACCTGCTGGCTGACAGAGGCCAGCAAGCTACTTCTT
 TGTCTCTGTGACCCAGCCACTGATACCTTTCTCATGTTCTTGCTTTTGATTATATATCTTTTATGAAG
 AAACAAATAAAAAAAATTTTCCCTCGAGGAAACAACCTTGG
 (SEQ ID NO:19)

Targeting Vector (5' arm; 200 bp flanking neo insert):

GATGACTACATCGGCGAGAATACCACGGTGGACTACACCCTGTACGAGTCGGTGTGCT
 TCAAGAAGGATGTGCGGAACTTTAAGGCCTGGTTTCTGCCTCTCATGTATTCTGTCATC
 TGCTTCGTGGGCCTGCTCGGCAACGGGCTGGTGATACTGACGTACATCTATTTCAAGA
 GGCTCAAGACCATGACGGATACCTA (SEQ ID NO: 21)

Targeting Vector (3' arm; 200 bp flanking neo insert):

AACCAGCAAGCAGCTCAACATTGCCATGACGTACCTACAGCCTGGCCTCCGTCCGCT
 GCTGCGTCAACCCTTTCTGTATGCCTTCATCGGCGTCAAGTTCCGCAGCGACCTCTTC
 AAGCTCTTCAAGGACTTGGGCTGTCTCAGCCAGGAACGGCTCCGGCACTGGTCTTCTC
 CGCGCATGTACGGAACGCGTCGGT (SEQ ID NO: 22)

FIG. 8